

Search for patents that relate to PTC use in ink jet printers

L25 ANSWER 3 OF 8 JAPIO COPYRIGHT 1999 JPO and Japi  
ACCESSION NUMBER: 92-336256 JAPIO  
TITLE: INK JET PRINTER HEAD  
INVENTOR: SUZUKI MASAHIKO; TAKAHASHI YOSHIKAZU  
PATENT ASSIGNEE(S): BROTHER IND LTD, JP (CO 000526)  
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 04336256	A	19921124	Heisei	(5) B41J002-045

APPLICATION INFORMATION

STN FORMAT: JP 91-108032 19910514  
ORIGINAL: JPO3108032 Heisei  
SOURCE: PATENT ABSTRACTS OF JAPAN, Unexamined Applications,  
Section: M. Sect. No. 1394, Vol. 17, No. 181, P. 142  
(19930408)

INT. PATENT CLASSIF.:

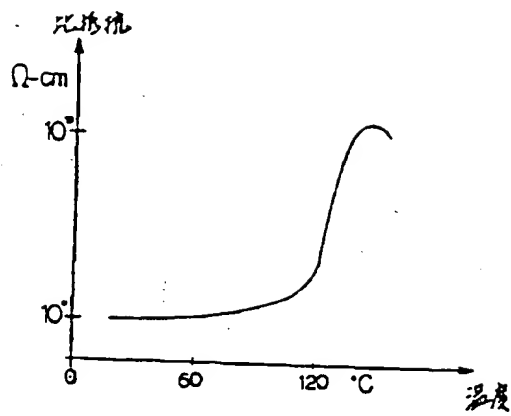
MAIN: (5) B41J002-045  
SECONDARY: (5) B41J002-055; (5) B41J002-16  
CLASSIFICATION: 29.4 PRECISION INSTRUMENTS - Business machine  
CONTROLLED TERM: R005 COMMON - Piezoelectric ferroelectric  
R105 INFORMATION PROCESSING - Ink jet printer

ABSTRACT:

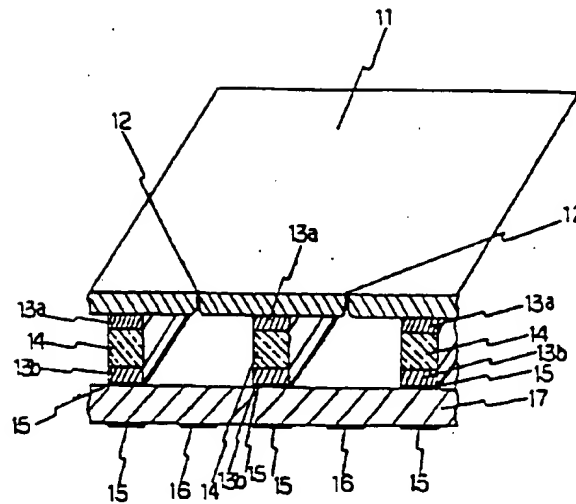
PURPOSE: To obviate a necessity of excess space for providing a heater and a temperature sensor by directly heating and controlling temperature with one component by a method wherein a portion of a component constructing a part necessary for heating a head is formed with a PTC heater material.

CONSTITUTION: For a head drive part, by impressing DC voltage to a drive electrode 16 of a piezoelectric actuator element, deformation of a shear mode by application of voltage to piezoelectric ceramics occurs, and jet of an ink drop following variation in a volume of an ink cavity is performed. The ink in the ink cavity is heated by electrifying an earth side electrode 13b and a drive side electrode 13a provided on upper and lower surfaces of a PTC heater component 14, and the ink is directly heated. Since the PTC heater component comes to be insulated when temperature of the PTC heater component becomes 120 to 130.degree.C, the electrification is cut and on-off control comes to be automatically performed. Therefore, temperature of the ink in the cavity becomes always constant, and high quality printing can be carried out.

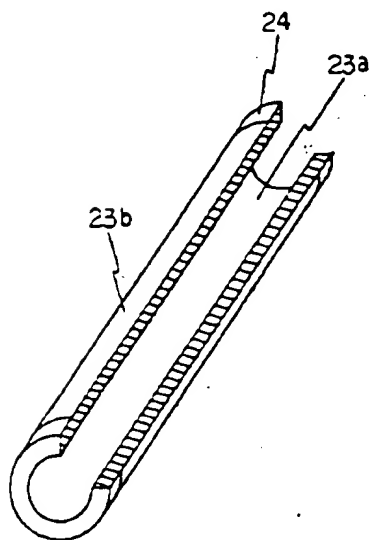
【図1】



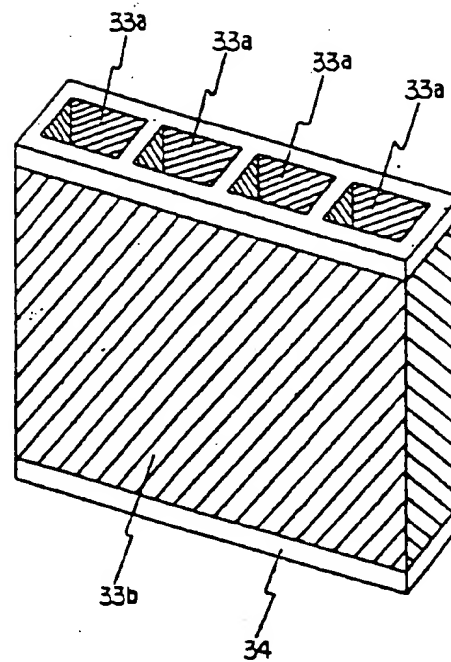
【図2】



【図3】



【図4】



【図5】

